

REMARKS

Claims 1-12 are pending in this application. By this Amendment, claim 12 is added. Support for the amendments to the claims may be found, for example, at page 11, line 36 to page 12, line 4 of the specification and the original claims. No new matter is added. Reconsideration and allowance of the application based upon the above amendments and the following remarks are respectfully requested.

I. Rejections Under 35 U.S.C. §102

The Office Action rejects claims 1-11 under 35 U.S.C. §102(b) as being anticipated by WO 03/037506 to Takao et al. ("WO '506"); and rejects claims 6-11 under 35 U.S.C. §102(e) being anticipated by U.S. Patent Application Publication No. 2004/0087440 to Kuno ("Kuno"). Applicant respectfully traverses the rejections.

A. WO '506

Claim 1 recites, *inter alia*, (emphasis added) "providing a sol containing at least a population of first colloid particles and a population of second colloid particles differing in the isoelectric point with each other," "adjusting the pH of said sol to be closer to the isoelectric point of said population of first colloid particles than to the isoelectric point of said population of second colloid particles, thereby aggregating said population of first colloid particles," "adjusting the pH of said sol to be closer to the isoelectric point of said population of second colloid particles than to the isoelectric point of said population of first colloid particles, thereby aggregating said population of second colloid particles onto said population of first colloid particles aggregated." WO '506 does not disclose, either expressly or inherently, at least these features.

First, WO '506 merely discloses a process in which the pH of the sol containing at least a population of first colloid particles and a population of second colloid particles is only adjusted once for obtaining Zr-Ce based mixed oxides. See WO '506, page 12, line 16 to

page 13, line 29. Specifically, WO '506 discloses that a mixture of an aqueous solution of zirconium oxychloride, an aqueous solution of cerium nitrate, and an aqueous solution of sulphuric acid was prepared, and aqueous solution of NaOH was added until a white precipitate formed at pH 1.5. See WO '506, page 12, lines 20-31. Thus, WO '506 fails to disclose a process which includes providing a sol containing at least a population of first colloid particles and a population of second colloid particles, and subsequent two pH adjusting steps. See WO '506, pages 11-13.

Second, WO '506 merely discloses that sulphate anion (SO_4^{2-}) is used to obtain a precipitate from zirconium salt (for example, zirconium oxychloride). See WO '506, claim 1, page 12, lines 20-31. Thus, WO '506 fails to disclose a process using a sol containing first colloid particles and second colloid particles, and thus fails to disclose "provide a sol containing at least a population of first colloid particles and a population of second colloid particles differing in the isoelectric point with each other," as recited in claim 1.

Therefore, claim 1 and its dependent claims are not anticipated by WO '506. Reconsideration and withdrawal of the rejections are respectfully requested.

Regarding claim 6, WO '506 merely discloses a process for preparing zirconia-cerium-based mixed oxides (WO '506, claim 1), and the process results in a homogenous crystal (WO '506, page 16, lines 20-25). Thus, WO '506 fails to disclose "the particulate support comprises *a core part and a surface layer*, the molar fraction of the zirconium constituting the zirconia in the core part being higher than the molar fraction of the zirconium constituting the zirconia in the surface layer, and the molar fraction of the cerium constituting the ceria in the surface layer being higher than the molar fraction of the cerium constituting the ceria in the core part," as recited in claim 6.

Therefore, claim 6 and its dependent claims are not anticipated by WO '506. Reconsideration and withdrawal of the rejections are respectfully requested.

B. Kuno

Kuno merely discloses that "[t]he Ce and Zr distribution within the metal oxide particle obtained by the transmission electron microscope (TEM) and energy dispersive X-ray analyzer (EDX) shows that almost all metal elements at the surfaces of the particles are Ce and that almost all metal elements at the cores of the particles are Zr." See Kuno, paragraph [0042]. Thus, Kuno does not disclose, either expressly or inherently, that "the composition of the boundary of the boundary between said core part and said surface layer is gradually changing," as recited in claim 6.

Therefore, claim 6 and its dependent claims are not anticipated by Kuno.

Reconsideration and withdrawal of the rejection are respectfully requested.

II. New claim

By this Amendment, new claim 12 is presented. New claim 12 depends from claim 1 and, thus, distinguishes over the applied references for at least the reasons discussed above with respect to claim 1. Prompt examination and allowance of new claim 12 are respectfully requested.

III. Double Patenting

The Office Action rejects claims 1-11 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 7,632,776.

Applicant respectfully traverses the rejection.

Applicant is simultaneously filing herewith a Terminal Disclaimer over the cited reference, thus obviating the rejection of claims 1-11. Reconsideration and withdrawal of the double patenting rejection are respectfully requested.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of this application are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachments:

Petition for Extension of Time
Terminal Disclaimer

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